Responsible Conduct of Research (RCR)

CITI Program’s RCR series consists of a basic course, including a set of additional modules of interest, and a refresher course. Both the basic and refresher courses contain modules that cover core RCR topics.

This catalog provides a listing and description of each module within the RCR series, as well as their recommended use, continuing education (CE) eligibility, and language availability.
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Refresher Course

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Basic Course
The RCR Basic Course consists of 12 modules and three additional modules of interest. For recommendations on how to use the basic RCR course, see the Using CITI Program Content: Responsible Conduct of Research (RCR) document.

RCR Basic
The basic RCR course covers core RCR topics. It is suitable for any person involved in research, ranging from upper-level undergraduates to established faculty. Particular emphasis is given to the educational needs of graduate students and postdoctoral researchers.

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Introduction to RCR (RCR-Basic)
This module introduces concepts and principles related to what has come to be known as the Responsible Conduct of Research (RCR), and provides an overview of the subject matter covered in CITI Program’s RCR courses.

Language Availability
English (ID: 17009)
Authorship (RCR-Basic)
This module provides an overview of the ethical responsibilities of authors. It discusses the primary criteria used to determine authorship, the range of acceptable authorship practices, circumstances where acknowledgement is appropriate, and challenging and problematic authorship practices.

Language Availability
- English (ID: 16597)
- Korean (ID: 16094)
- Portuguese (ID: 16813)
- Russian (ID: 14563)
- Spanish (ID: 16893)
- Vietnamese (ID: 16533)
- Korean (ID: 16100)

Collaborative Research (RCR-Basic)
This module provides an overview of ethical issues relating to collaborative research partnerships. It includes a discussion of issues related to collaborating with researchers from other disciplines and with industry.

Language Availability
- English (ID: 16598)
- Portuguese (ID: 16814)
- Spanish (ID: 16840)
- Vietnamese (ID: 16534)
- Korean (ID: 16097)
- Korean (ID: 16292)
- Korean (ID: 16103)

Conflicts of Interest (RCR-Basic)
This module describes the different types of conflicts of interest, conflict of commitment, reasons why conflicts of interest and commitment can be problematic, and strategies that may mitigate or eliminate the impact of conflicts of interest. It also discusses U.S. regulations and policies related to financial conflicts of interest.

Language Availability
- English (ID: 16599)
- Portuguese (ID: 16815)
- Spanish (ID: 16841)
- Vietnamese (ID: 16535)
- Korean (ID: 16096)
- Korean (ID: 16276)
- Korean (ID: 16102)

Data Management (RCR-Basic)
This module provides an overview of ethical issues relating to data. This includes issues related to data acquisition, management, sharing, and ownership.

Language Availability
- English (ID: 16600)
- Portuguese (ID: 16816)
Financial Responsibility (RCR-Basic)
This module provides an overview of the financial responsibilities associated with sponsored programs administration. It is specifically designed for research administrators.

Language Availability
English (ID: 16601)
Portuguese (ID: 16817)
Spanish (ID: 16843)

Mentoring (RCR-Basic)
This module provides an overview of the ethical responsibilities of mentors and trainees. It discusses the roles of an advisor, supervisor, and mentor, as well as strategies for managing conflicts between mentors and trainees.

Language Availability
English (ID: 16602)
Portuguese (ID: 16818)
Spanish (ID: 16844)
Russian (ID: 14537)
Vietnamese (ID: 16350)

Peer Review (RCR-Basic)
This module provides an overview of the ethical responsibilities of authors, editors, and reviewers of manuscripts. It also includes a discussion of the grant proposal review process.

Language Availability
English (ID: 16603)
Portuguese (ID: 16819)
Spanish (ID: 16845)
Vietnamese (ID: 16532)
Korean (ID: 16095)
Korean (ID: 16280)
Korean (ID: 16101)

Plagiarism (RCR-Basic)
This module discusses plagiarism, a major violation of academic integrity standards and research misconduct. It is designed to present learners with a detailed discussion of what constitutes plagiarism, the parameters of plagiarism, the basic principles of scholarship, the distinction between summarizing and paraphrasing, and proper paraphrasing skills and citation usage.

Language Availability
English (ID: 15156)
Portuguese (ID: 16820)
Spanish (ID: 16846)
Vietnamese (ID: 16537)
**Research Involving Human Subjects (RCR-Basic)**
This module provides an introduction to ethical and regulatory issues related to the participation of human beings in research. It includes a description of the informed consent process and the *Common Rule*, which is a set of regulations adopted by a number of U.S. federal agencies. NOTE: this module is not intended to replace the *Human Subjects Research* (HSR) course or other training required by federal agencies or institutional review boards (IRBs).

**Language Availability**
English (ID: 13566)
Russian (ID: 14263)

**Research Misconduct (RCR-Basic)**
This module describes the three main practices (fabrication, falsification, and plagiarism) that constitute research misconduct and the steps that can be taken to handle allegations of research misconduct.

**Language Availability**
English (ID: 16604)
Spanish (ID: 16846)
Portuguese (ID: 16820)
Korean (ID: 16092)
Korean (ID: 16093)

**Using Animal Subjects in Research (RCR-Basic)**
This module provides an introduction to ethical and regulatory issues related to the use of animal subjects in research. It includes a description of federal regulations governing how research with animal subjects should be conducted. NOTE: this module is not intended to replace the *Animal Care and Use* (ACU) course or other training required by federal agencies or institutional animal care and use committees (IACUCs).

**Language Availability**
English (ID: 13301)
Russian (ID: 14188)
Vietnamese (ID: 16536)
Additional Modules of Interest
These modules are intended to complement the RCR basic course. See the RCR Selection Form for recommendations.

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**Environmental and Social Dimensions of Engineering Research (RCR)**
This module provides an overview of the responsibilities that engineering researchers have when it comes to environmental and social considerations. It includes a discussion of moral development, risk, and sustainability.

**Language Availability**
English (ID: 12835)

**Export Controls and National Security (RCR)**
This module provides an overview of U.S. export control regulations and a brief discussion of issues researchers should be aware of related to national security. It is written for a general audience.

**Language Availability**
English (ID: 14770)

**Research, Ethics, and Society (RCR)**
This module provides learners with an introduction to their social responsibilities as researchers. It discusses the meaning of social responsibility, why researchers have social responsibilities, and how researchers can act on their social responsibilities.

**Language Availability**
English (ID: 15198)
Refresher Course

The RCR Refresher course is intended to provide retraining for a learner who has already completed a basic RCR course. The RCR Refresher course can help expand a learner’s knowledge about topics that were presented in the basic level modules. For recommendations on how to use the RCR Refresher course, see the Using CITI Program Content: Responsible Conduct of Research (RCR) document.

RCR Refresher

This course is discipline-neutral and meant to reinforce the importance of concepts covered in a basic level RCR course. Each module in the RCR Refresher course includes a short quiz and at least one case study. It is recommended that learners complete the RCR Refresher course three or four years after completing a basic RCR course but it is up to your organization to determine whether refresher training is appropriate for its learners.

Continuing Education (CE) Credits and Units

These modules hold the following credit designations:

- Physicians: 4 *AMA PRA Category 1 Credits*™
- Psychologists: 4 CEP Credits
- Nurses: Approval Pending*
- Other Participants: 4 *AMA PRA Category 1 Credits*™

Credit Designation Periods:

- Physicians, Psychologists, and Other Participants: 14 March 2014 – 31 March 2017
- Nurses: Approval Pending*

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Authorship (RCR-Refresher)
This module describes the important issues related to publishing research results and working with authors. It discusses the potential pitfalls and errors that can lead to research misconduct and authorship disputes, as well as strategies for avoiding and resolving authorship disputes.

Language Availability
English (ID: 15661)

Collaborative Research (RCR-Refresher)
This module describes styles of collaboration and potential trade-offs relating to collaborative research. It identifies some of the complexities of managing and assessing collaborations, and special considerations involved in collaborative work, including working with industry, across disciplinary and international boundaries, and with students.

Language Availability
English (ID: 15662)

Conflicts of Interest (RCR-Refresher)
This module explains why conflicts of interest are ethically problematic and how institutions can have a conflict of interest. It discusses the different types of conflicts and recent federal regulations related to financial conflicts of interest.

Language Availability
English (ID: 15663)

Data Management (RCR-Refresher)
This module discusses effective approaches to responsible data management and key issues related to data storage, sharing, and reporting.

Language Availability
English (ID: 15664)

Mentoring (RCR-Refresher)
This module discusses the roles and responsibilities of mentors and those that they mentor. It describes how to avoid research-related problems and how to optimize the mentoring experience, as well as barriers to mentoring, particularly for women and minority researchers, and potential solutions to these barriers.

Language Availability
English (ID: 15667)

Peer Review (RCR-Refresher)
This module discusses the history and evolution of peer review, value of peer review as it relates to publications and grant awards, ethical issues associated with peer review, and ethical duties of a peer reviewer.

Language Availability
English (ID: 15665)
**Research Involving Human Subjects (RCR-Refresher)**
This module discusses the basic ethical principles relating to human subjects research, informed consent process, federal definition of human subjects research, and role of an institutional review board (IRB).

*Language Availability*
English (ID: 15668)

**Research Misconduct (RCR-Refresher)**
This module describes how the federal government has defined research misconduct. It discusses the different types of research misconduct and strategies that individuals and institutions might take to mitigate the occurrence of research misconduct.

*Language Availability*
English (ID: 15666)

**Using Animal Subjects in Research (RCR-Refresher)**
This module discusses the species that are covered by U.S. regulations, protocol renewal procedure, why a new alternatives search is necessary with IACUC protocol renewal applications, what constitutes an acceptable justification for the number of animals to be used in a study, and use of performance standards in animal research. It also summarizes how the IACUC should handle a proposal for withholding of analgesic agents.

*Language Availability*
English (ID: 15669)